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Abstracts

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Effect of switch to INTERGROWTH-21st charts on identification of small-for-gestational age fetuses

Amanda Merricks, Oliver Hugh, Jason Gardosi

Perinatal Institute, Birmingham, UK

Objective: Since the last RCOG Green Top Guideline,[1] a number of NHS trusts switched to INTERGROWTH fetal weight charts.[2] We wanted to assess the effect of their introduction on rate of small-for-gestational age (SGA) fetuses identified antenatally.

Methods: The analysis was based on units' own reported screen positive SGA rates published in the Maternity Services Monthly Statistics (MSMS).[3] Switch dates from GROW to INTERGROWTH charts were confirmed by a national Freedom of Information survey.[4] There were eight units with complete MSMS data, and each was matched with two units of similar birthrate that had continued using GROW. Analysis was undertaken using an interrupted time-series logistic regression model with unit-level random intercept, adjusting for the time before and after the switch.

Results: Figure 1 displays the GROW and INTERGROWTH screen positive rates and monthly averages over eight months of available data pre- and post switch period. The rate stayed constant at an average of 9.4% in the matched GROW-continuing units, but reduced rapidly by 45% with INTERGROWTH, from 9.6% pre- to 5.3% post switch (interrupted time-series OR: 0.51; 95% CI: 0.46–0.57).

Conclusion: The SGA screen positive rate drops immediately by nearly a half with implementation of the INTERGROWTH fetal weight standard, while the matched control group showed no change over the same time period. Such a large reduction in antenatal identification of SGA fetuses is likely to lead to many missed diagnoses of babies at risk of fetal growth restriction and stillbirth, as previously shown in NHS data.[5]

References:

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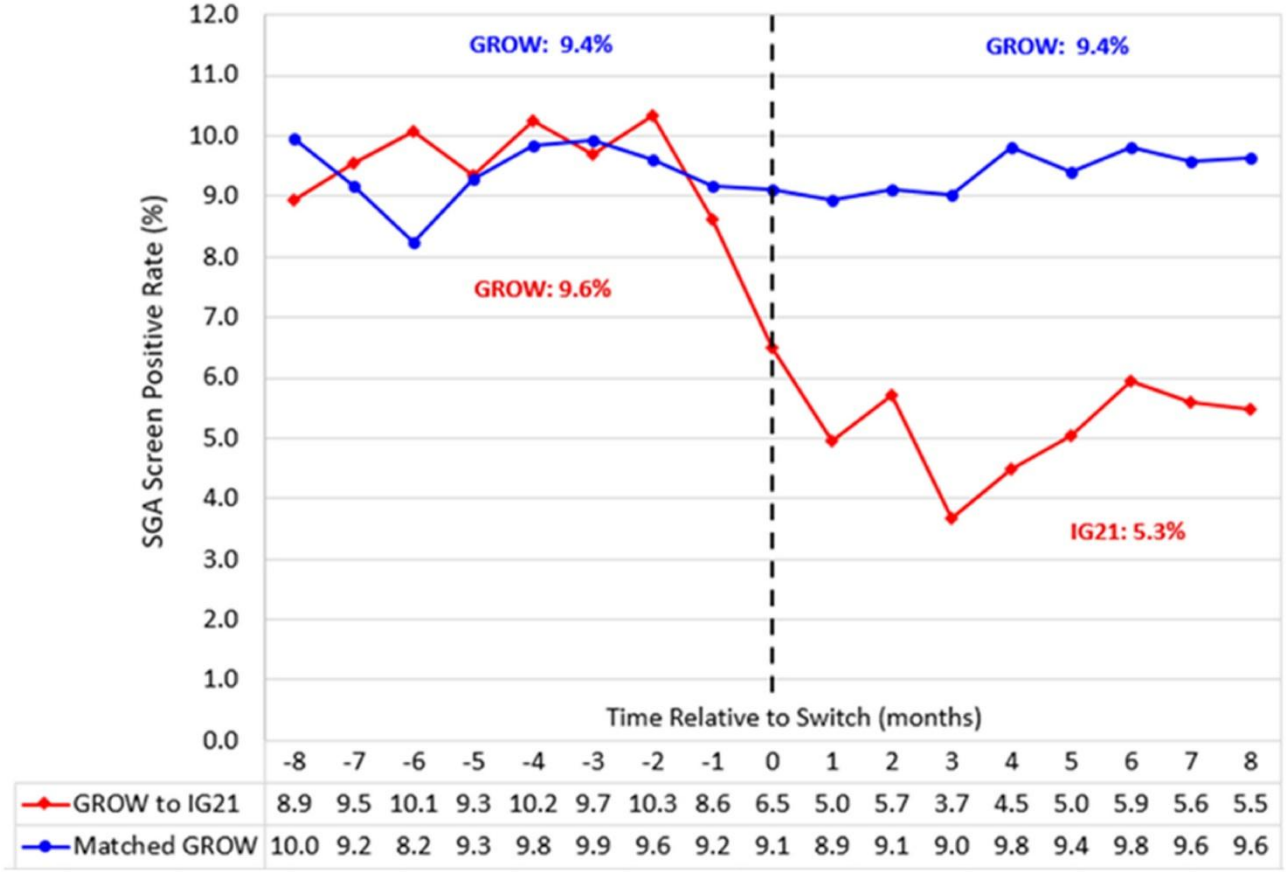

	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
GROW to IG21	8.9	9.5	10.1	9.3	10.2	9.7	10.3	8.6	6.5	5.0	5.7	3.7	4.5	5.0	5.9	5.6	5.5
Matched GROW	10.0	9.2	8.2	9.3	9.8	9.9	9.6	9.2	9.1	8.9	9.1	9.0	9.8	9.4	9.8	9.6	9.6

Figure 221.1